UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

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Investigation of:	*	
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MERRIMACK VALLEY RESIDENTIAL GAS	*	
FIRES AND EXPLOSIONS	*	Accident No.: PLD18MR007
SEPTEMBER 13, 2018	*	
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Interview of: ROBERT MOONEY

1600 Eastgate Parkway
Gahanna, Ohio

Thursday,
March 7, 2019

APPEARANCES:

MICHAEL HOEPF, Ph.D., Human Performance Investigator
National Transportation Safety Board

ANNE GARCIA, Human Performance Investigator
National Transportation Safety Board

ROGER EVANS, Investigator in Charge
National Transportation Safety Board

STEPHEN JENNER, Ph.D., Accident Investigator
National Transportation Safety Board

THOMAS TOBIN, Esq.
Wilson Elser Law Firm
(On behalf of Mr. Mooney)

I N D E X

I N T E R V I E W

DR. HOEPF: My name is Mike Hoepf. Today is March 7, 2019. We are at 1600 Eastgate Parkway, Gahanna, Ohio, interviewing Rob Mooney in connection with an accident that occurred at Merrimack Valley, September 13th, 2018. The NTSB accident number is PLD18MR007.

The purpose of the investigation is to increase safety, not to assign fault, blame or liability. NTSB cannot offer any kind of guarantee of confidentiality or immunity from legal or certificate actions. The transcript or summary of the interview will go in the public docket.

The interviewee can one representative of the interviewee's choice. Do you understand this interview is being recorded?

MR. MOONEY: Yes.

DR. HOEPF: Please state your name and spell it, and I'd like everyone in the room to do the same.

MR. MOONEY: Robert V. Mooney, R-o-b-e-r-t, V, M-o-o-n-e-y. You can call me Rob.

DR. HOEPF: Mike Hoepf, H-o-e-p-f, with the NTSB.

MS. GARCIA: Anne Garcia, G-a-r-c-i-a, investigator with the NTSB.

DR. JENNER: I'm Stephen Jenner, S-t-e-p-h-e-n, J-e-n-n-e-r, investigator with the NTSB.

MR. TOBIN: My name's Tom Tobin, T-o-b-i-n. I'm a partner with the Wilson Elser Law Firm.

MR. EVANS: This is Roger Evans, R-o-g-e-r, E-v-a-n-s, NTSB.

INTERVIEW OF ROB MOONEY

BY DR. HOEPF:

Q. Okay. This is going to be a targeted interview today. Mr. Mooney, do you mind if we call you by your first name, Rob?

A. Not at all.

Q. Okay, okay. Well, this is going to be a targeted interview today just to talk about -- if you could talk about your role in the company, just briefly, your title and, also, your role as it pertains to the NTSB accident investigation in connection with the incident in September?

A. So I'm currently vice president of engineering for SMS. We launched a special project coming out of the Lawrence event and I'm working full time on that, leading the group that is doing a comprehensive asset assessment of all our -- we've established five asset classes and we're doing a full-blown asset risk review. So I'm working full time on that and I'm the NTSB party coordinator role.

Q. Okay. And can you just give us an update on how the investigation is going in terms of what you can tell us today?

A. Can you be -- I'm not sure.

Q. Oh, sure, sure. Absolutely, absolutely. Okay. Well, what is your understanding of what occurred on September 13th in Merrimack Valley?

A. We had construction crew that was completing the tie-in work

and killing a section of a cast iron main and activating a plastic main in, you know, part of our normal modernization program, working about 2500 feet away, I believe, from a district station, part of a system that is -- a low pressure system that's fed by 14 regulators. When they de-energized the section of pipe they were working on -- it happened to be attached to the control lines that were attached to that, a section of cast iron main in front of the station. When the pressure in the system went to zero, the regulator opened up and put high pressure gas into the low pressure system.

DR. HOEPF: Okay. Anne?

MS. GARCIA: Thank you, Mike.

BY MS. GARCIA:

Q. So about how far away from the regulator station were the sensing lines?

A. So we have -- we've already provided the maps and sketches of that, but initially I heard it was 70 feet, but then I think it was closer to 50. But we can -- as far as from the regulator point to where they were tied into the cast iron main?

Q. Yes.

A. Yes. But we provided that sketch already to NTSB so we can confirm that.

Q. Okay. But you think -- you believe it's 50 feet?

A. I think it's 50 feet, 50 feet or something in that range.

Q. Okay. And did NiSource go and check on the sensing lines

after the accident?

A. So what happened was, during the evening of the accident we were still trying to figure out what the cause was. There were some initial reports that the station was damaged. There was other thoughts around maybe when they were doing the tie-in they tied into a high pressure main or something to that effect. So we didn't know what the cause was.

Later that evening we had sort of all of our management team was in Columbus, and Dave Mueller called and said he wanted to have a discussion because he thought he had a potential cause of the incident. And so he explained that they had done some investigation and had some -- had investigated certain records and had some reason to believe that the control lines may have been tied into the cast iron main that was abandoned. So that was Thursday night of the 13th. And immediately following that we found out that NTSB was going to get involved and I was asked to get the -- or actually get on our company plane first thing in the morning and fly to Merrimack Valley to meet with NTSB. Originally we were supposed to meet in the morning but your folks took a while getting there and so we had some meetings in the afternoon, informal meetings, I think, and then met the next day.

So once we found out that the NTSB was getting involved we stopped any sort of activity. We were going to have the team go out and actually physically excavate to locate and determine whether the hypothesis was correct; so, you know, were they

actually physically, you know, connected to that line or not. But when we found out that NTSB was involved, we asked them not to do that. When we met, the first meeting we had with Roger officially on Saturday morning, I believe, Roger, Dave Mueller described to Roger what we thought had happened and showed him documents of the sketches that had led him to believe that that was a potential cause and suggested that, you know, one of the first things we ought to do in the investigation was to go out and excavate to determine if, in fact, they were attached to that particular main.

Q. Okay. And what was the results of that excavation?

A. The excavation confirmed that the lines were connected to that main.

Q. Okay. So the lines had not been removed from the main and tied off?

A. Correct.

Q. Okay. Thank you. And you are using control lines and sensing lines interchangeably?

A. Yes. I'm sorry. Yes.

Q. Okay. I just wanted to make certain.

A. Yes.

MS. GARCIA: Okay. All right. Thank you. Steve?

BY DR. JENNER:

Q. Okay. One thing we're interested in is your approach to the internal investigation that you're doing and if you can give us a summary of how you're addressing the situation, any conclusions or

findings that you've had and any work going forward.

A. So when I first got involved, we would've, you know, launched an investigation. My initial focus when I got to Lawrence was really I was working with NTSB trying to understand the process and providing -- over the first couple of days there were hundreds of -- during the meetings there was hundreds of data requests. We were managing those. So we really weren't looking any further than what the obvious -- what appeared to be the cause of the accident, so there was really no investigation on my part.

But I also was involved with kind of assessing the system and determining what we were going to do going forward. So we ultimately rebuilt the entire system, and so I -- part of my role was to, you know, was to work on that. So as we were working through and providing all the data requests, there really wasn't anything that we had done further than what NTSB was asking us to do. And then at some point, within a week or two, I believe, we became aware of the fact that the Department of Justice was getting involved and so we were asked to not to conduct any, you know, internal investigations and that would be done by the legal department.

So my focus has really been on working with Roger, providing him with the information, taking what we did know -- and we did implement a number of safety enhancements, you know, as early as September and October and, you know, asked -- based on what we learned on this incident, wanted to make sure that we stopped all

work on low pressure systems until we could go out and confirm the location of control lines across the seven states. That was one activity. Put in enhanced control procedures around several levels of review before anybody can do any additional work. We started evaluating -- now this is not a lot of stuff that I was doing because I was busy with NTSB, but this was kind of going on in parallel based on our findings. So that was initiated right away. Evaluated kind of the cost and benefits and reliability of installing automatic shutoff devices at regulator stations, and they had committed to do that. And at the same time, you know, our board of directors had asked us to go ahead and accelerate what was already an ongoing effort to implement SMS.

And so all of those things were kind of being done in parallel to, you know, the investigation. And then since then, when we received the urgent recommendations in November, we've been really focused on taking those recommendations and implementing the recommendations from -- your recommendations.

Q. Earlier we -- in an earlier interview we got a pretty good description of the tasks that were involved starting with the field engineer of developing a project, and that included gathering information and how it's moved up for different levels of review. Are you familiar with any changes that have occurred at any different level of project development post-accident?

A. Say that again.

Q. Okay. Prior to the accident there were certain procedures

that took place involving developing a work order. Okay. After the accident, have there been any changes to those procedures or processes?

A. One of the things that we're working on right now is we did put in place kind of an informal enhanced review -- kind of constructability review process. One of the -- one of our responses to the urgent recommendations is to look at the life cycle of a project, and it's really not just about the constructability review, it's about what type of stakeholder reviews are done at the design phase. And those things are -- they were done and they were done in the past, but they're more formalized, the documentation of those types of needs, and determine who needs to participate in those meetings.

So that's, we're looking at -- that's not complete yet. We're looking at that. So it would be a peer review of the design phase, a constructability review, which is really just designed to have the construction folks have input into the design so that we know -- so the engineering folks, what type of method is going to be used for construction, whether it's going to be directional drilling or open cut excavation, that type of thing. And then, you know, other meetings around prior to the start of construction and during the tie-in and bypass process.

We have enhanced our tie-in and bypass procedures. That also is in response to the NTSB recommendations about energy control and management of change when reconfiguring stations, and that is

a more detailed, more step-by-step sign-off requirements and things like that.

Q. Okay. I heard you mention peer review for a design phase.

A. Yes.

Q. My understanding right now is peer review is sort of an informal step and it's up to the field engineer to approach a peer or mentor when he feels like it. Are you trying to make that a more formal process?

A. Yes.

Q. Could you just elaborate? What do you envision that becoming?

A. So I -- Kevin's leading that initiative. I haven't been involved in the details of what that's going to look like, but I know they're working on a stakeholder matrix to determine, based on type of project it is, who should be involved with that work. I don't know -- I haven't seen any documentation around what that looks like yet, but I know it's under development.

Q. Okay. So matrix, something that someone can literally or physically refer to and that'll help direct them where to --

A. Yes.

Q. Okay. And the enhanced constructability review process, what's the purpose of the enhanced constructability process?

A. Well, I mean -- I say that as the full spectrum of things. So the -- one of the only formal documents that we have today that shows the collaboration, interaction of -- you know, the

interdepartmental collaboration is the constructability review form. There's a lot of interaction with stakeholders and partners throughout the project, it's just not documented. So when I say enhanced stakeholder or enhanced constructability review, it's not changing the constructability review piece that much but it's adding a front end on the design side and a back end on the tie-in and bypass side.

Q. My understanding, and correct me if I'm wrong, is that M&R review of a project is not that frequent, and is that -- and I don't have a definition for frequency but it seems like it's -- more often doesn't happen than it does happen.

A. That's my experience.

Q. Okay.

A. The M&R is typically involved when you are replacing a station or installing a new station or having the station shut off to do work on the system. I don't know the numbers, but that's --

Q. Okay. So it sounds like M&R is involved only when it really applies to them and stations or something related to stations, and not as a regular level of review, that they're going to get a chance to review it whether their stations are involved or not.

A. Right. So if you're, you know, you're doing a straight simple main extension to serve a new customer, there should be no reason to get M&R involved. Right?

Q. Right. Okay. Any other changes that you want to comment on?

A. I'm trying to think. We have made control line documentation

more visible to the organization by virtue of the fact that we've added that into GIS, which was one of the other enhancements. So there are records of control lines in the field, in the stations. That has now been -- if you went to our GIS systems you would know there's a regulator there, but you wouldn't have the details of the piping within the regulator station. Now you can click on that and it'll show you that documentation.

Q. Is that a project that's still being developed or has it been completed?

A. It's actually complete. The only place that we're still finishing up is actually in Lawrence, Massachusetts. There's a -- there's six or eight stations that we're working on. The rest of the seven states we completed before December, but we had some issues with the mayor in Lawrence who would not allow us -- give us permits to go ahead and do the necessary excavation to locate the control lines. So we just received that within the last couple of weeks and we're working through those stations. But other than that, yeah, it's complete.

Q. I understand there was a delay in this project that was out of your hands; it was because of mayor's desires. Do you see that as being a factor in any of the incident?

A. I don't know for a fact because, again, you know, stopped the investigation. But I -- that was something that I would surely be looking at, because we were aware that the mayor at the time -- I was not aware of this project at all until the event, right. But

we were aware in late 2016 that the mayor had put a moratorium on construction, not only for our crews but for his own crews. And so when you take a project -- and when I found out that this was a project that was originally to be done in '16 and then was stopped and didn't restart until '18, you know, that -- I thought that could be a contributor.

Q. What are some of your concerns about that delay, in particular?

A. Just communication.

Q. Between -- the internal communication or communications outside of the organization or what level?

A. Just losing continuity in doing projects out of sequence always creates a risk.

DR. JENNER: Okay. Appreciate that. That's all the questions I have. Roger, do you have any?

MR. EVANS: Yes, I do.

BY MR. EVANS:

Q. Hey, Rob, how are you? I know I talked to you last week and appreciate all that information we got from that meeting. Just a few questions, actually.

So can you describe for us just so we have this on the record what -- you know, we know that there was approximately 10 miles of main compromised and there was 5100 steel and plastic services, 8500 customers, 125 structures. But I know you did a project after all this that you took the low pressure customers and

converted them to moderate. Can you describe what -- in this area of the neighborhood, you know, Andover and Lawrence, are there still low pressure clients off of these headers; is that correct?
A. There are still low pressure systems in the greater Lawrence area. None of the customers that were on the low pressure system that was impacted by the overpressurization are on low pressure. So they've all been converted to medium or higher pressure at this point. Is that what you're asking?
Q. Okay. So -- yeah. I mean, in the project that you did there, that was when you did the round-the-clock, spent all the money and all the time and all that to replace all of the services and mains and stuff with plastic, I guess, and with modern meter and regulator in each house. Is that correct?
A. That's correct.
Q. Okay. And when you did that work, none of the homes that are -- like I have this map. That's why I wish I could show it to you. But I have this map that shows the impacted area that you folks gave us while we were there, and it has a blue cloud type of thing. I think you recall that map.
A. Yes.
Q. So when we say impacted area for the factual document I'm creating, I can say that impacted area has been -- has all been replaced with modern service. Is that correct?
A. So anything that was fed by the 14 regulator stations as part of that low pressure system has been replaced -- well, there were

certain -- I want to say, around 10 miles of plastic that had been fairly recently installed over the last few years that had been pressure tested at a much higher pressure, that we requalified and we reused, and then the -- you know, it was about 45 miles or so of pipe that we actually replaced with plastic.

And then there was certain customers that you could covert to medium pressure just by -- you had a low pressure line that was part of the impacted system on a street, you also had a medium pressure line. So you could take that customer and attach them to the new -- replace their service, install a new meter set, and then serve them off of the higher pressure system.

So what I don't know, Roger, is if you're looking -- you'd have to kind of trace the system out because I don't know if you just draw a geographic area whether there could be another, you know, another system there.

Q. Yeah. Maybe I can sit with you next week sometime --

A. Yeah.

Q. -- or something and we can --

A. But every customer that was impacted is now being served by the higher pressure system.

Q. Okay. So just to reiterate, the 14 regulators with sensing lines are no longer in service. Is that a correct statement?

A. That is correct.

Q. Okay. And the next thing is, one of the main kind of like puzzling questions that I have and it's -- I've looked and looked.

So I know that -- I mean, it's obvious that, you know, I too have the opinion that the manner of work that you -- it causes a lack of -- you know, it can compromise your coordination, let's just say, when you have stop and start, stop and start. But one of things I'm curious about is, in all of the work that you've seen and all of the data you've seen from this accident, were you able to locate any work order that was related to relocating sensing lines that could have led the project manager of this scope where we had the issue to believe that these lines, the sensing lines, you know, were connected to another part of the system instead of the 8-inch cast iron?

Was there anything that you've seen thus far that says, oh, yeah, this work order didn't get finished so we -- or it was delayed or, you know, that was going to take the sensing lines and relocate them to another header? Have you found anything like that at all related to this accident?

A. I have not.

MR. EVANS: Okay. That's one of the things that's -- I guess we'll just -- I'm going to cease my looking, I guess, and unless I hear from you folks that there is something in the mill that talks about that. That's all I have. That's it.

DR. HOEPF: Okay. Thanks, Roger. We'll give you another opportunity if you come up with anything else. Okay. So --

MR. EVANS: Okay.

BY DR. HOEPF:

Q. This is, yeah, this is good that -- being able to be efficient here. So I've got a minute here, so let's just -- just to clarify -- and, again, we don't want you to speculate or go outside of bounds or anything. I guess what we had been thinking was that maybe you had been able to, through your talking amongst the engineering department, come to some information to learn -- but our understanding of this incident is that there was a field engineer who put together a work package that there was an omission. So let me just ask you outright. Do you have any insight into the particulars of exactly why that came to pass or is it just -- are you pretty much where we're at?

A. (No response.)

Q. Do you need me to rephrase that?

A. Yeah. Yeah. Because there are two questions there.

Q. Okay, okay. Yeah. Okay. Do you -- have you been able to concretely identify why the field engineer omitted the sensing lines or failed to address them?

MR. TOBIN: You're asking him personally, not the company; is that correct?

MS. GARCIA: Yes.

BY DR. HOEPF:

Q. Yes. Yes. I'm asking you personally.

A. So it still -- repeat the question. I'm sorry.

Q. Okay. Sure, sure. The field engineer, he put together a work packet that failed to properly address the sensing lines.

Have you been able to figure out why?
A. No.
Q. Okay.
A. I mean, I -- again, really didn't do any, you know, investigation on my own once we started to work with NTSB.
Q. Okay, okay. Yeah, and that's fair. I'm just -- I'm kind of clarifying for the record that -- so you're pretty much right where we are in terms of trying to sort this out.
A. There is -- you asked the question is there anything else that we've uncovered that you --
Q. Yeah. That's all we're trying to get, is there anything else that --
A. So I think there is one thing that I think has been -- there's a misconception about, and that is that we somehow had a procedure 4 or 5 years that required measurement regulation folks to be on site excavations when work was being done.
Q. Uh-huh.
A. And so that is -- that was included in the report that issued the urgent recommendations, and we had folks look to see if there ever was such a procedure and could not find such a thing. And we're also trying to determine was there a practice of that and we're trying to pull together information to demonstrate that that really never was the case. There were certain times when an M&R person would be asked to be on site, and that was typically when you're working near the station or if you're going to have the

station turned on or off. But it was not a case for all work being done on the system that you would have measurement and regulation folks standing by monitoring pressures.

Q. Uh-huh.

A. The pressure monitoring, when you're doing work on a replacement project, is done at the tie-in locations and so it's the construction crews that actually do the pressure monitoring. It was not the M&R folks doing that.

Q. Um-hum.

A. So that was -- that made it to the, you know, in your report and, you know, was picked up in the media. So we took a look at that and we're going to be able to demonstrate that just isn't the case.

Q. Um-hum. I got you. Okay. Any other misconceptions that you can kind of -- you want to take this opportunity to set straight?

A. Just one other, and that is, you know, also in the report there's a reference to the fact that the engineer did not understand the purpose or the function of a sensing line or a control line, and I don't know where that comes from. The engineer was trained, had M&R training, and it would have been definitely covered there.

I read the transcript of his interview on site. There's nothing in there that suggests anything that would lead you to believe that he didn't understand what a control line's purpose was.

Q. So for you, as vice president, you know, a high ranking engineering person, I mean, what would -- why would sensing lines not be something that would be considered when you're retiring an old piece of pipe?
A. I don't know that it wasn't.
Q. You don't know that it wasn't. Can you clarify?
A. I just, I don't know -- I haven't seen any documentation, but I don't know that, you know, through all the interaction with stakeholders and other folks, I don't know whether there was or there wasn't consideration to relocate the control line.
Q. Oh, you don't know. What you're saying, you don't -- it might have been considered somewhere along the process.
A. Right.
Q. Okay, okay. I got you. I got you. Okay.
DR. HOEPF: I'll go ahead and go around the room again. Again, I think we, kind of, clarified quite a bit here.
MS. GARCIA: Yeah. This is Anne.
BY MS. GARCIA:
Q. So just to step back. For the record, who is it that you report to?
A. Right now I report to Tim Tokish.
Q. Okay. And is that who you reported to at the time?
A. No.
Q. Okay.
A. At the time I reported to Dave Monte.

Q. And that's because engineering was underneath Dave Monte at the time?
A. Yes. Yes.
Q. Okay.
A. So Tim Tokish is leading the broad initiative as we're -- that's launching SMS, enhancing the emergency response. That whole body of work, there's like 170 folks that have been assigned full time, internal and external, to this effort.
Q. Okay. Do any of the engineers who are involved with this project report to you?
A. When you say involved with the project -- I don't think so. We have engineers that are on our project team. Let me think for a second if anybody --
Q. Report on up through, so --
A. So we have an engineer on our project team that's helping us with our risk assessment who was in Massachusetts but I don't think had anything to do with this project.
Q. Okay. Now --
A. He doesn't officially report to me. It's all kind of a -- we haven't made any, you know, changes in official org structure, but they're just assigned full time on the project.
Q. Okay. And who is the engineer who is in charge of this big project, replacing the couple thousand feet of cast iron pipe?
A. The South Union project? Louie DeRoxas.
Q. Okay. He was in charge of the whole thing?

A. Yeah.
Q. Okay.
A. Under the leadership of Marty Kulig.
Q. Right. Okay. And just to clarify what was already addressed, do you know when it was scheduled to be -- looked to see when it was scheduled for sensing lines to be moved to a new plastic pipeline? Would that be something that would normally be a separate piece of work that would be noticeable?
A. The entire project was scheduled to be completed in 2016.
Q. Okay. So there were major delays.
A. Right.
Q. Okay. So you don't know specifically -- you didn't look at anything that showed when the sensing lines were scheduled to be --
A. I have not reviewed or seen a project schedule.
Q. Okay. Thank you. And then my -- you said losing continuity and doing projects out of sequence creates a risk. And you believe that's something that happened with this project?
A. There definitely, it definitely was done -- the sequence was changed and there were delays.
Q. Okay.
A. Yes.
Q. Thank you. And are risks reassessed when a project is delayed or required to be done out of sequence? Is there a feedback to go back to the risk assessment?

A. Well, typically it's not very typical to have a project delayed this long so it's hard to answer that, but I know all of our safety briefings and things, that sort of thing are always revisited when you restart work.
Q. Okay. Thank you. And then just one last question. In your position as vice president for engineering what is your safety goal for NiSource for the engineering department?
A. Zero incidents.
MS. GARCIA: Okay. Thank you. Steve?
DR. JENNER: I have no questions. Thank you.
DR. HOEPF: Roger, follow-ups?
MR. EVANS: Yes, just a couple.
BY MR. EVANS:
Q. Number one, Rob, I respect your comment about Louie and the knowledge of sensing lines. So what I would like you to do is to supply me with a training document, training date, that says that in that training that he was given information about sensing lines, and it will be in the report. I will put in the report as a footnoted item for the factual. So that will take care of that.
A. Okay. Hey, Roger --
Q. So if you can -- an email to that effect.
A. Okay.
Q. That work?
A. Yep.
Q. Okay. Because I don't want to have anyone say that we

misstated something, especially when it gets down to the factual which is -- you know, the preliminary is -- do change. You know, we can correct a preliminary report if there's errors in that, but when it gets down to the report and the factual, there's no room for error, so we have to have that correct. So I would be more than happy to make sure that that is supported, you know, fully, that his training is. So that was one item.

The next item in another interview we were told that there was a request in the M&R department for additional full-time employees and suddenly the request -- it sounded to us like it died on the vine, and then the next thing you know the person is gone that was in charge of that area. Is that -- do those people report to you?

A. No, they do not.

Q. And who do they report to?

A. The -- when you say those people, I'm assuming your --

Q. M&R Department.

A. M&R Department reports up through the general -- vice president and general manager in the state.

Q. Oh, okay.

A. And the level below that is systems ops manager, systems operations manager.

Q. Oh, okay. Okay. Well, I won't bother you with that question, then.

MR. EVANS: Okay. That's all I have. Thank you.

DR. HOEPF: Okay. Thanks, Roger. Okay.

BY DR. HOEPF:

Q. Thanks, Rob. Just a concluding question, just an open-ended -- you know, let me just make this as broad as possible, allow you to comment to any extent you'd like and we'll end with that.

We've talked a pretty good amount with some of your colleagues about SMS and, you know, so you don't need to rehash. It sounds like the company is pretty, you know, excited about that and that's great.

You know, can you just talk about sort of from your perspective maybe some of the safety management practices that you've seen in the engineering department, you know, through the years have there been leading up to the incident. Is there something, you know, if you were talking to the industry in general, what things did you change now that, you know, you see as improvements? Have you seen any deficiencies in the past that you've been able to address with, you know, system safety? Can you just comment in general on that?

A. I'm trying to think of -- because of our discussions with other companies and kind of best practice discussions in AGA. I think a couple of things that the industry, I think that needs to look at and is looking at, so this isn't -- and we'll learn from this event, is the -- kind of the location of buried control lines, and there are parts of the country where that's a lot more prevalent than other parts. So I think that is something that the

industry will learn.

And I think there's also something that was talked about on Monday with Bob Beaton, and that is, you know, I think the gas industry does have a strong bias towards making -- for good reason, making sure you avoid outages almost at all costs. And I think, you know, we're reassessing that and saying when you look at the consequences of something like this. So the automatic shutoff devices are something that we're -- we believe in.

We understand that there's going to be some situations that you're going to have to monitor closely because you might have an outage. But in the interest, you know, in the interest of eliminating, you know, kind of a high-consequence event, we're moving forward in that direction. And whether the industry does or not, I don't know, but other companies have and we've had opportunities to discuss their experience and it's been pretty positive.

DR. HOEPF: Um-hum, um-hum. Okay. Great. Thank you.

Any final clarifications? Roger, good?

MR. EVANS: All good.

DR. HOEPF: Okay. Thank you very much. Appreciate it.

(Whereupon, the interview was concluded.)

CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF:	MERRIMACK VALLEY RESIDENTIAL GAS FIRES AND EXPLOSIONS SEPTEMBER 13, 2018 Interview of Robert Mooney
ACCIDENT NUMBER:	PLD18MR007
PLACE:	Gahanna, Ohio
DATE:	March 7, 2019

was held according to the record, and that this is the original, complete, true and accurate transcript which has been transcribed to the best of my skill and ability.

[redacted]

Beverly A. Lano
Transcriber